DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0013605

OFFICE Design Policy & Support

Ware County

GDOT District 5 - Jesup

DATE 4/9/2018

SR 38/US 84 @ Satilla River in Sunnyside – Bridge Replacement

FROM

for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Hiral Patel, Director of Engineering

Joe Carpenter, Director of P3

Albert Shelby, Director of Program Delivery

Darryl VanMeter, Assistant Director of P3/State Innovative Delivery Administrator

Kim Nesbitt, Program Delivery Administrator

Bobby Hilliard, Program Control Administrator

Cindy VanDyke, State Transportation Planning Administrator

Eric Duff, State Environmental Administrator

Bill DuVall, State Bridge Engineer

Andrew Heath, State Traffic Engineer

Angela Robinson, Financial Management Administrator

Lisa Myers, State Project Review Engineer

Monica Flournoy, State Materials Engineer

Patrick Allen, State Utilities Engineer

Benny Walden, Statewide Location Bureau Chief

Brad Saxon, District Engineer

Troy Pittman, District Preconstruction Engineer

Dallory Rozier, District Utilities Engineer

Aghdas Ghazi, Project Manager

BOARD MEMBER - 1st Congressional District

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA LIMITED SCOPE PROJECT CONCEPT REPORT

| Project Type: Bridge Replacement | P.I. Number: | 0013605 |
|--|--|---------------------------------------|
| GDOT District: 5 | County: | |
| Federal Route Number: US 84 | State Route Number: | SR 38 |
| Project Number: | N/A | |
| ** Report updated to address Of | ffice Head Review Commo | ents |
| This project will replace the existing bridge on SR 38 | 3/US 84 over the Satilla River | in Sunnyside. The |
| proposed bridge will consist of two 12-foot lanes in e | each direction and one 14-foo | t center turn lane. The |
| rural shoulders will be 8-feet on both sides. | • | |
| Submitted for approval: | | 2/9/2018 |
| Mull Bruss | | |
| Brad Gowen, P.E., Holt Consulting Company, LLC | fumberly W. Modell | Date 2/27/18 |
| State Program Delivery Engineer | | Date |
| Anhola & Mala o GAP | C.L.B. | 2/12/2018 |
| 6DOT Project Manager * Pagement | endations on File | Date |
| | endations on the | |
| Recommendation for approval: | | |
| * Eric Duff/KLP | | 3/15/2018 |
| State Environmental Administrator | | Date |
| * Brad Saxon/KLP | | 3/12/2018 |
| District 5 Engineer | | Date |
| * Christina Barry/KLP | | 3/9/2018 |
| or State Traffic Engineer | | Date |
| * Bill DuVall/KLP | | 3/3/2018 |
| State Bridge Engineer | - Land Control of the | Date |
| | | |
| ☐ MPO Area: This project is consistent with the (RTP)/Long Range Transportation Plan (LR | | ansportation Plan |
| Rural Area: This project is consistent with th (SWTP) and/or is included in the State Trans | | |
| Nolling & Nacks | | 3-2-18 |
| State Transportation Planning Administrator | | Date |
| | | |
| Approval: | | · · · · · · · · · · · · · · · · · · · |
| Concur: Via Rut | | 3-26-18 |
| GDOT Director of Engineering | | Date |
| | | |
| Approve: | 2.141 | 2/20/10 |
| GDOT Chief Engineer | ONCO | Date |

County: Ware/Pierce

PLANNING & BACKGROUND DATA

Project Justification Statement: The bridge on SR 38 (US 84) over Satilla River, Structure ID 299-0013-0, was built in 1923 and widened in 1982. This bridge consists of twenty-two (22) spans of Reinforced Concrete Deck Girders (RDCG's) with three (3) intermediate spans of continuous concrete arched RCDG's in the original section and PSC beams in the widened section. The substructure consists of concrete caps with concrete driven piles, concrete pier walls, and concrete columns. The bridge was designed using an H-15 vehicle, which is below current design standards. This bridge is currently posted for weight restrictions. The overall condition of this bridge would be classified as fair. The deck is in satisfactory condition with minor concrete cracking and spalls with exposed rebar. The superstructure is in fair condition with flexure cracking in the RCDG's and spalls with exposed rebar. The substructure is in fair condition with moderate cracking in the concrete caps and spalls with exposed rebar in the caps, columns, and pier walls. This bridge is classified as having an unknown foundation and therefore could be at risk for scour. Due to the structural integrity of the bridge, the weight restrictions of the bridge structure, and the unknown foundation of the substructure, replacement of this 93-year-old bridge is recommended. (Project Justification Statement provided by the Bridge Office)

P.I. Number: 0013605

Existing conditions: The existing typical section of SR 38 consists of two 12-foot travel lanes in each direction with a 14-foot center turn lane. The existing roadway outside shoulders are 10 feet wide, 4 feet being paved. Additionally, SR 38 consists of Structure ID 299-0013-0 which is a bridge that consists of twenty-two (22) spans of Reinforced Concrete Deck Girders (RDCG's) with three (3) intermediate spans of continuous concrete arched RCDG's in the original section and PSC beams in the widened section. The bridge deck width is 79.60 feet. The total length of the bridge is 741 feet.

| Other projects in the area: None | | | | | | |
|--|--|--------------------|----------------------------|--|--|--|
| MPO: N/A - not in an MPO | TIP #:N/A | | | | | |
| Congressional District(s): 1 | | | | | | |
| Federal Oversight: □PoDI ⊠ | Exempt □State | Funded | □Other | | | |
| Current Year (2017): 22,500 Two-way Design Year (2043): 25,600 Two-w Traffic Projections Performed by:Arcadis | Current Year (2017): <u>22,500 Two-way</u> Open Year (2023): <u>23,200 Two-way</u> Design Year (2043): <u>25,600 Two-way</u> | | | | | |
| Functional Classification (Mainline): Urb | oan Principal Arterial | | | | | |
| Complete Streets - Bicycle, Pedestrian, and/or Transit Standards Warrants: Warrants met: ⊠None □Bicycle □Pedestrian □Transit According to section 9.4.2 (Bicycle Warrants) of the Design Policy Manual, bicycle accommodations shall be included on all new and widened bridges. Although this portion of the route is not currently designated as local, state, or national bike path, the shoulders on the bridge and roadway approaches will be wide enough to accommodate bicycle lanes. | | | | | | |
| Pavement Evaluation and Recommendate Initial Pavement Evaluation Summary Report Initial Pavement Type Selection Report Report Report Alternatives: | oort Required? | ⊠No ⊠No □PCC | □Yes □Yes □HMA & PCC | | | |

DESIGN AND STRUCTURAL

Description of Proposed Project: This project will replace the existing bridge that was built in 1923 and widened in 1982 over the Satilla River in Sunnyside. The proposed bridge will consist of two 12-foot lanes in each direction and one 14-foot center turn lane. An 8-foot rural shoulder will be utilized on both sides on the new bridge. The roadway approaches will consist of a five-lane section with 10-foot rural shoulders, 6.5 feet being paved. The proposed bridge will be stage constructed on the existing alignment in two stages. One lane in each direction will be maintained for stage 1. In stage 2, two northbound lanes and one southbound lane will be maintained. The proposed project is 0.60 miles.

P.I. Number: 0013605

Major Structures:

| Structure ID | Existing | Proposed |
|--------------|--------------------------------------|-----------------------------------|
| 299-0013-0 | The existing five-lane bridge is 741 | The proposed bridge will be 770 |
| | feet long with a total bridge deck | feet long, consisting of four 12- |
| | width of 79.6 feet. The sufficiency | foot lanes and one 14-foot two |
| | rating for this bridge is 50.5. | way left turn lane with 2-8 foot |
| | | rural shoulders. The total deck |
| | | width will be 81.25 feet. |

Mainline Design Features: SR 38/US 84

| Feature | Existing | Policy | Proposed |
|---------------------------------|-------------|------------------|-----------------|
| Typical Section | | | |
| - Number of Lanes | 5 | | 4 |
| - Lane Width(s) | 12 ft | 11-12 ft | 12 ft |
| - Median Width & Type | 14 ft flush | 24 ft raised | 14 ft flush |
| - Outside Shoulder Width | 4 ft | 10 ft,6.5' paved | 10 ft,6.5'paved |
| - Outside Shoulder Slope | 6% | 6% | 6% |
| - Inside Shoulder Width | N/A | N/A | N/A |
| - Sidewalks | N/A | N/A | N/A |
| - Auxiliary Lanes | N/A | | N/A |
| - Bike Accommodations | N/A | 4 ft | 4 ft |
| Posted Speed | 55 mph | | 55 mph |
| Design Speed | 55 mph | 55 mph | 55 mph |
| Minimum Horizontal Curve Radius | N/A | 1060 ft | 25,200 ft |
| Maximum Superelevation Rate | N/A | 6% | NC |
| Maximum Grade | N/A | 5% | 1.2% |
| Access Control | By Permit | By Permit | By Permit |
| Design Vehicle | H-15 | | WB-67 |
| Pavement Type | HMA | | HMA |

^{*}According to current GDOT design policy if applicable

Is the project located on a NHS roadway? \square No \boxtimes Yes

Design Exceptions/Design Variances to GDOT and/or FHWA Controlling Criteria anticipated:N/A

Design Variances to GDOT Standard Criteria anticipated: D.V. for 14-foot flush median

Limited Scope Concept Report – Page 5 P.I. Number: 0013605

Design Criteria for Arterial Roadways in Table 6.6 of the Design Policy Manual states that an

County: Ware/Pierce

arterial with 4-lanes in a rural section (open ditch section) at 55 mph requires a 24-foot raised median; therefore a Design Variance is required for the proposed 14-foot flush median. ⊠ No **Lighting required:** □ Yes Off-site Detours Anticipated: \boxtimes No □ Undetermined ☐ Yes **Transportation Management Plan [TMP] Required:** □ No If Yes: Project classified as: \bowtie TTC TMP Components Anticipated: INTERCHANGES AND INTERSECTIONS Major Interchanges/Intersections: N/A Intersection Control Evaluation (ICE) Required: \bowtie No ☐ Yes Roundabout Peer Review Required: No ☐ Yes ☐ Completed – Date: UTILITY AND PROPERTY Railroad Involvement: CSX Railroad runs parallel to SR 38/US 84 along the south side of the road with an old railroad truss bridge crossing the river. Coordination will be required with **CSX** Railroad. Utility Involvements: Atlanta Gas Light, Alma Telephone Company, AT&T, City of Waycross (Sewer), Ga Power Distribution, Unity Fiber **SUE Required:** □ No ⊠Yes Quality Level D is currently underway during the Concept Phase. District Utilities stated that SUE survey will not be needed during the remaining plan development process. Public Interest Determination Policy and Procedure recommended? ⊠ No ☐ Yes Right-of-Way: Proposed width: 144 ft. Existing width: <u>144 ft</u>. Required Right-of-Way anticipated: □ Undetermined None ☐ Yes Easements anticipated: ☐ None ☐ Temporary ☐ Permanent ☐ Utility □ Other Note: The permanent easement shall be acquired with the right to place utilities. Anticipated total number of impacted parcels: 9 Displacements anticipated: Businesses: 0 Residences: 0

Other: 0

☐ Yes

□ Undetermined

Total Displacements: 0

⊠ No

CONTEXT SENSITIVE SOLUTIONS

Impacts to USACE property anticipated?

Issues of Concern: N/A

County: Ware/Pierce

Context Sensitive Solutions Proposed: N/A

ENVIRONMENTAL AND PERMITS

| Anticipated E NEPA: GEPA: | nvironmental Do ☐ PCE ☐ Type A | cument: ⊠ CE □ Type B | □ EA-FONS ⊠ None | SI | | | |
|--|--|--|---|--|--|---|--|
| | ronmental Analys onmental consider ental analysis and n, and agency con | ations noted belo are subject to re | | - | | _ | - |
| | nmental considera on, delineation, an | | | n the comp | oletion of res | source | |
| | Requirements: nce – Is the proje | ct located in an | MS4 area? | ⊠ No | □ Y | es | |
| ls Non-MS4 w | rater quality mitig | ation anticipated | d? □ No | [| ⊠ Yes | | |
| Permit, NPDE As a bridge re require a Sect be required fo candidate, thre located within | al Permits, Variants Seplacement projection 404 Permit and pron-exemple attended, and end Critical Habitat for the separate of | t, any impacts to d possible compe t impacts within angered species r the Atlantic Stu | adjacent juri ensatory mitig state manda , and Section | sdictional sation for intending the sation for intending the satisfies and sattifies and satisfies and satisfies and satisfies and satisfies a | waters (weth npacts. A Bus. Early code been initia | and/streams) uffer Variance ordination effortionation profile |) would e would orts for oject is |
| | ocated in an Ozon kide hotspot analys | | area? | ⊠ No ⊠ No | | □ Yes | |
| NEPA/GEPA | Comments & Info | rmation: Catego | rical Exclusi | on | | | |

P.I. Number: 0013605

Research is ongoing into the ownership and operation of the Satilla River access point located on the

southwest corner of the existing bridge. This access may or may not be protected by Section 4(f). If it is determined that Section 4(f) applies, a de minimis impact determination would likely be applicable for this

resource.

Ecology - Regulatory responses to requests for listed candidate, threatened, and endangered species in the project area have been received. All listed species will be surveyed for during field work, including aquatic species of concern in the Satilla River watershed. This project is located within Critical Habitat for the Atlantic Sturgeon. Coordination with the NMFS is expected for this project. Field surveys will also identify and delineate any jurisdictional Waters of the US, or state protected waters. The delineation data for any protected waters identified during survey work would be provided to the design team to aid in project design. Impacts to protected waters could result in additional permitting and mitigation.

County: Ware/Pierce

Archaeology – Archaeological site 9PR1 is situated approximately 100 meters east of the bridge and is identified as a twentieth century artifact scatter. Depending on the size of the survey area, this site may need to be revisited for this project. An archaeological assessment was conducted by GDOT in advance of a repaving project along SR 38/US 84 which aligns with the bridge location. This investigation recorded negative findings; however, no shovel tests were excavated. A Phase I archaeological survey would be required for this location because the project footprint would exceed the area that has already been evaluated. Satellite imagery shows the surrounding area as the wooded outskirts of Sunnyside. The likelihood of encountering previously unrecorded Precontact and Historic period archaeological sites is moderate given the results of previous investigations.

P.I. Number: 0013605

History – The bridge to be replaced is included in the updated Georgia Historic Bridge Survey and was determined not eligible for inclusion in the NRHP. The World War I Centennial Commission's information is that the bridge was originally known as the War Memorial Bridge and that when the bridge was reconstructed/widened two plaques from the original bridge were saved and reinstalled on the widened bridge about mid-way on both side in the bridge side barrier. It might be more appropriate to relocate the plaques near the boat ramp as the current location is inaccessible to pedestrians.

One additional resource is located within the APE of the proposed project. This resource is the railroad located on the east side of, adjacent and parallel to, the highway corridor. The railroad is recommended eligible for inclusion in the NRHP.

Public Involvement – A Public Information Open House (PIOH) is scheduled for October 5, 2018.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Is Federal Aviation Administration (FAA) coordination anticipated?

☑ No □ Yes

Project Meetings: Concept Team Meeting held on 2/1/2018

Other coordination to date: N/A

| Project Activity | Party Responsible for Performing Task(s) |
|---|--|
| Concept Development | Holt Consulting Company, LLC, Heath & Lineback |
| Design | Holt Consulting Company, LLC, Heath & |
| | Lineback |
| Right-of-Way Acquisition | GDOT |
| Utility Coordination (Preconstruction) | GDOT |
| Utility Relocation (Construction) | Utility |
| Letting to Contract | GDOT |
| Construction Supervision | GDOT |
| Providing Material Pits | Contractor |
| Providing Detours | Contractor |
| Environmental Studies, Documents, & Permits | Kennedy Engineering & Associates Group, LLC, |
| | Edwards-Pitman Environmental, Inc |
| Environmental Mitigation | GDOT |
| Construction Inspection & Materials Testing | GDOT |

County: Ware/Pierce

Project Cost Estimate and Funding Responsibilities:

| | PE Ac | tivities | | | | |
|---------------------|------------|---------------------------|---------------------|---------------------------|-----------------|------------|
| | PE Funding | Section 404 Mitigation | ROW** | Reimbursable Utilities | CST* | Total Cost |
| Funded By | GDOT | GDOT | GDOT | GDOT | GDOT | |
| \$ Amount | \$500,000 | \$50,000 | TBD | \$168,400 | \$18,903,742.16 | TBD |
| Date of Estimate | 3/7/16 | 3/14/2018 | Requested 1/23/2018 | 1/16/2018 | 3/13/2018 | |

P.I. Number: 0013605

ALTERNATIVES DISCUSSION

Preferred Alternative: Replace the existing bridge at the existing location utilizing stage construction of the proposed bridge maintaining one northbound lane and one southbound lane in stage 1 and two northbound lanes and one southbound lane in stage 2.

| Estimated Property Impacts: | 9 parcels | Estimated Total Cost: | \$19,622,142.16 |
|------------------------------------|-----------|-----------------------|-----------------|
| Estimated ROW Cost: | TBD** | Estimated CST Time: | 24 Months |

Rationale: This alternate maintains one lane in each direction for stage 1. In stage 2, two northbound lanes and one southbound lane would be maintained. Two stages would be required with this option. Traffic will be shifted to one-lane in each direction on the south side of the existing bridge while the northern portion of the bridge is removed allowing room to construct a portion of the new bridge. In the second stage, two northbound lanes and one southbound lane would be shifted to the north side of the proposed bridge while the southern portion of the bridge is demolished and reconstructed. This alternative was chosen because it only requires two stages for the bridge construction reducing the time of impact to the public. Also, it maintains three lanes of traffic for half of the construction time which will help alleviate traffic congestion leaving Waycross.

^{**}ROW Cost have been requested from GDOT 1/23/2018

| No-Build Alternative: Retain the existing bridge | | | |
|--|-----|-----------------------|-----|
| Estimated Property Impacts: | N/A | Estimated Total Cost: | N/A |
| Estimated ROW Cost: | N/A | Estimated CST Time: | N/A |
| Detionals. This alternative would not most the project justification so the atwest well integrity of the | | | |

Rationale: This alternative would not meet the project justification as the structural integrity of the bridge is insufficient.

^{*}CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

^{**}ROW Cost have been requested from GDOT 1/23/2018

County: Ware/Pierce

Alternative 1: Replace the existing bridge at the existing location utilizing stage construction of the proposed bridge maintaining two northbound lanes and one southbound lane.

P.I. Number: 0013605

| Estimated Property Impacts: | 9 parcels | Estimated Total Cost: | \$20,229,454.29 |
|-----------------------------|-----------|-----------------------|-----------------|
| Estimated ROW Cost: | TBD** | Estimated CST Time: | 30 Months |

Rationale: This alternate maintains two northbound lanes and one southbound lane for the entire duration of construction. Three stages would be required with this alternative. Traffic would be shifted to two-lanes in the northbound direction and one-lane in the southbound direction on the south side of the existing bridge while the northern portion of the bridge is removed allowing room to construct a portion of the new bridge. In the second stage, the two northbound lanes would be shifted to the south side of the existing bridge and one southbound lane would be maintained on the newly constructed portion on the north side while the middle portion of the bridge is demolished and reconstructed. Stage three would maintain two northbound lanes and one southbound lane on the north side of the newly constructed portion of the bridge while the south side of the existing bridge is demolished and reconstructed. This alternative was not chosen because of the construction cost and the time to construct three stages of the proposed bridge.

Alternative 2: Replace the existing bridge at the existing location utilizing stage construction of the proposed bridge maintaining one-lane of traffic in each direction.

| Estimated Property | | 9 parcels | Estimated Total Cost: | \$19,622,142.16 |
|--------------------|---------------------|-----------|------------------------|-----------------|
| | Estimated Property | 9 parcers | Estillated Total Cost. | \$19,022,142.10 |
| | Impacts: | | | |
| | Estimated ROW Cost: | TBD** | Estimated CST Time: | 24 Months |

Rationale: This alternate maintains one lane of traffic in each direction for the entire duration of construction. Two stages would be required with this alternative. Traffic would be shifted to one-lane in each direction on the south side of the existing bridge while the northern portion of the bridge is removed allowing room to construct a portion of the new bridge. In the second stage, traffic will be shifted to the newly constructed bridge section while the southern portion of the existing bridge is removed and then reconstructed. This alternative was not chosen because it could experience traffic congestion for the entire duration of the project with only one lane in each direction being maintained.

^{**}ROW Cost have been requested from GDOT 1/23/2018

^{**}ROW Cost have been requested from GDOT 1/23/2018

County: Ware/Pierce

Alternative 3: Replace the existing bridge at the existing location utilizing stage construction of the proposed bridge maintaining two 10-foot northbound lanes and two 10-foot southbound lanes.

P.I. Number: 0013605

| Estimated Property Impacts: | 9 parcels | Estimated Total Cost: | \$20,289,829.29 |
|-----------------------------|-----------|-----------------------|-----------------|
| Estimated ROW Cost: | TBD** | Estimated CST Time: | 30 Months |

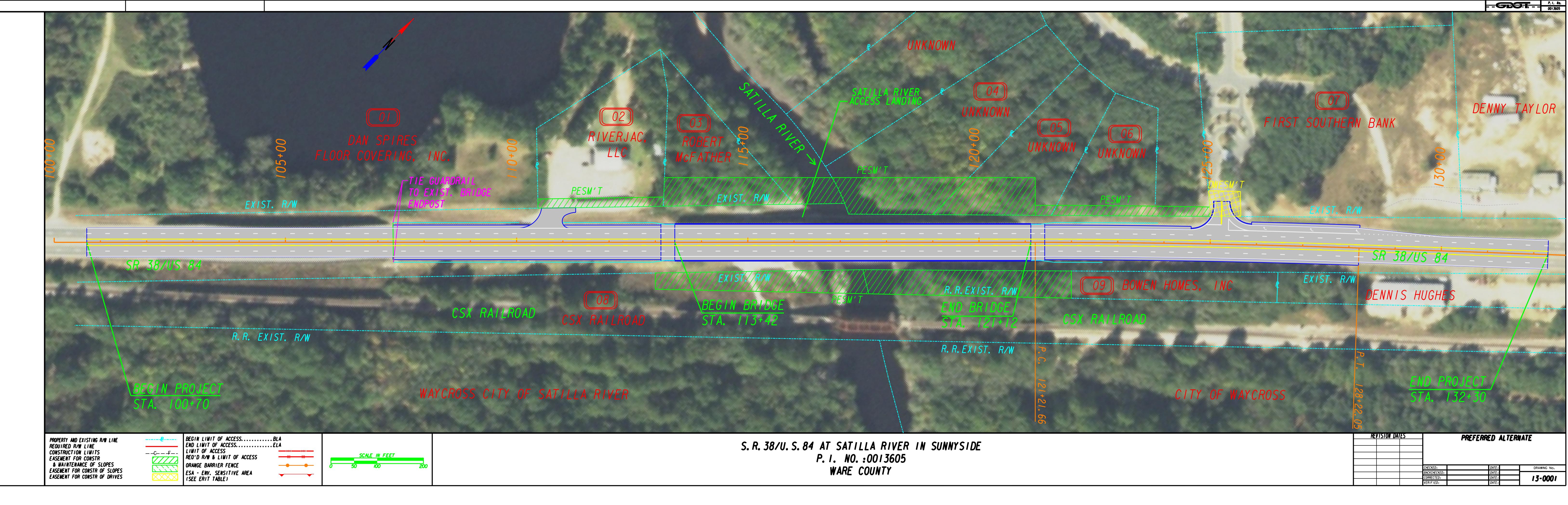
Rationale: This alternate maintains two 10-foot northbound lanes and two 10-foot southbound lanes separated by a temporary concrete barrier with no shy-line provided for the first stage. Three stages would be required with this alternative. The first stage would shift traffic to the south side of the existing bridge while the northern portion of the existing bridge is removed. Once a portion of the proposed bridge is constructed, two lanes would be shifted onto it while two lanes would remain on the existing southern portion. Stage two would remove a portion of the center of the existing bridge and then reconstruct it from the top down. Stage three would accommodate four lanes on the northern portion of the new bridge with no shy-line while the rest of the southern portion is removed and reconstructed. This alternative was not chosen because of the narrow lanes during construction, the construction time, and the construction costs.

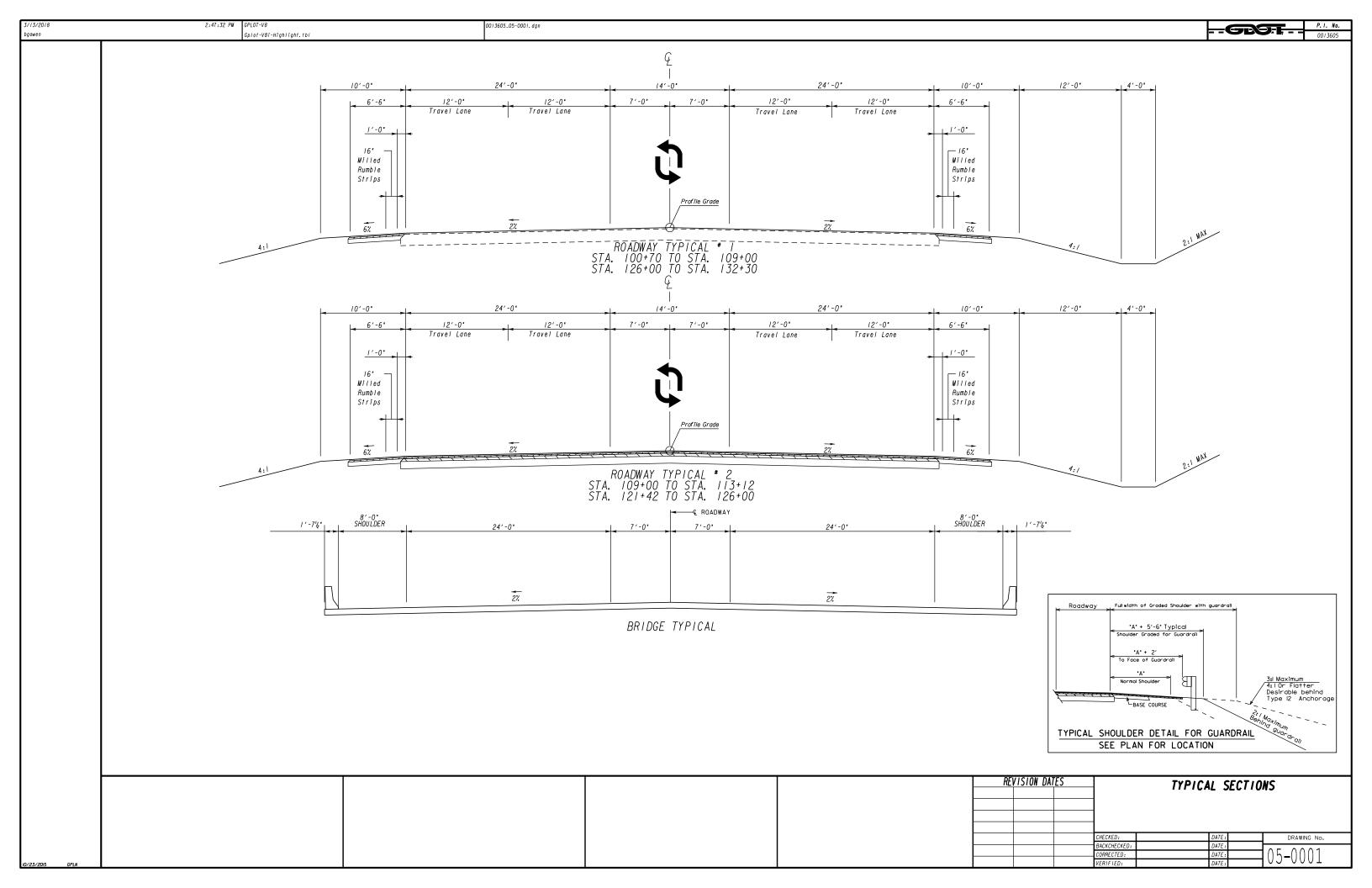
Additional Comments/Information: N/A

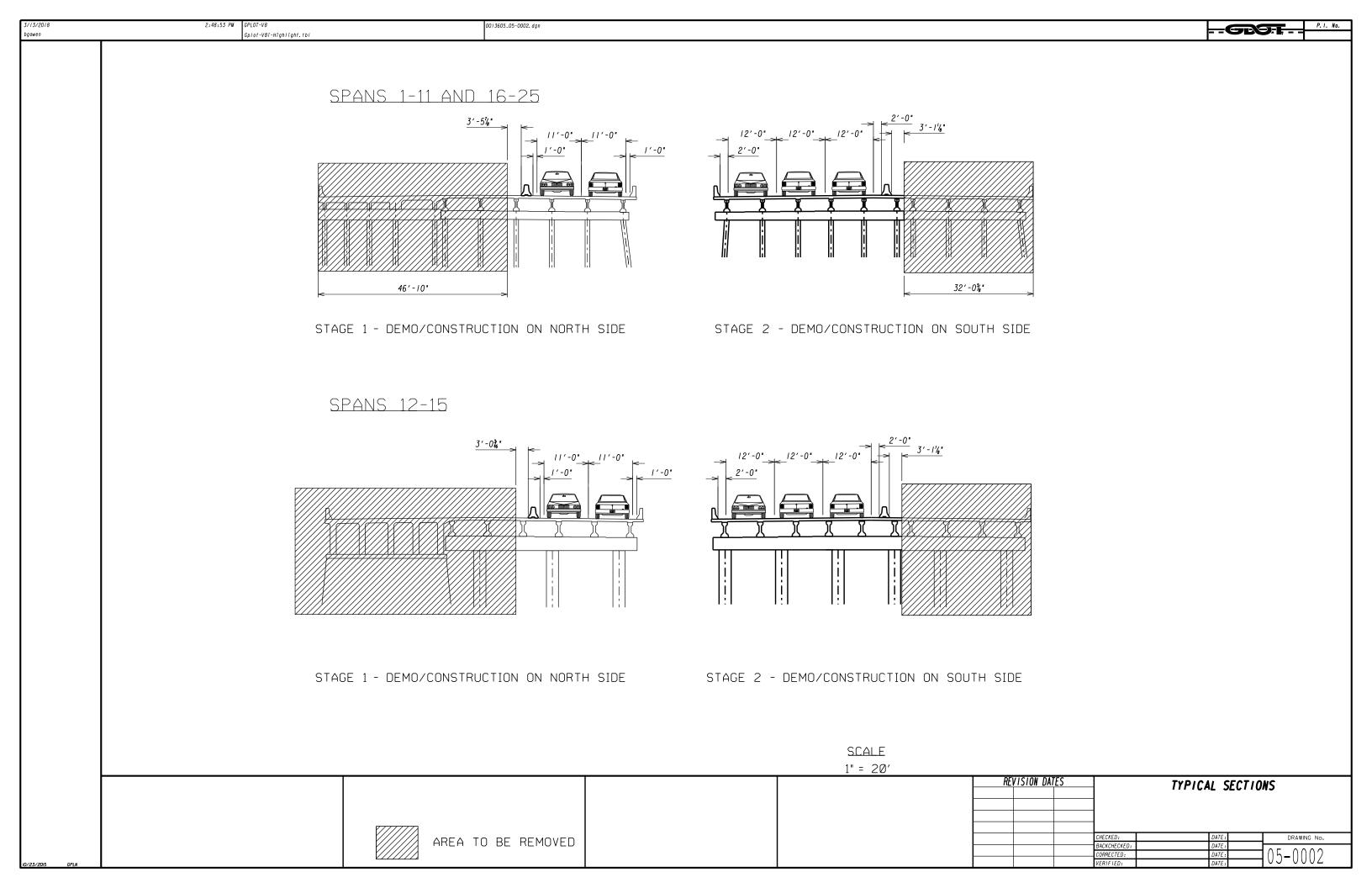
LIST OF ATTACHMENTS/SUPPORTING DATA

- 1. Concept Layout
- 2. Typical sections
- 3. Cost Estimates
 - a. Contigency Summary
 - b. CES Cost Estimate
 - c. Completed Fuel and Asphalt Price Adjustment Forms
 - d. Preliminary Utility Estimate
 - e. Preliminary Right of Way Cost Estimate (pending)
 - f. Mitigation Cost
- 4. Traffic assignment
- 5. Concept Team Meeting Minutes
- 6. Bridge Inventory Sheets
- 7. MS4

^{**}ROW Cost have been requested from GDOT 1/23/2018







DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

| FILE | P.I. No. | 0013605 | | OFFICE | Program Delivery | | | | | |
|-----------|--|-------------------|--|----------------|------------------|------------------------|--|--|--|--|
| PROJE | CT DESCRI | PT: | ION | | | | | | | |
| Replace | ment of SR 3 | 8/U | S 84 bridge at the Satilla River in Su | nnyside | | | | | | |
| | | | | | DATE | March 13, 2018 | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| From: | Kimberly N | <mark>lesb</mark> | itt, State Program Delivery Adminis | trator | | | | | | |
| To: | Lisa L. My | ers, | State Project Review Engineer | | | | | | | |
| | via Email N | Mail | box: CostEstimatesandUpdates@d | ot.ga.gov | | | | | | |
| Subjects | · REVISION | T ZL | O PROGRAMMED COSTS | | | | | | | |
| Bubject | , KE VISIO | 10 1 | OTROGRAMMED COSTS | MGMT LE | T DATE | 3/15/2021 | | | | |
| PROJEC | CT MANAGI | ER | Aghdas Ghazi | | | | | | | |
| | | | | MGMT RO | W DATE | 11/15/2019 | | | | |
| PROGR | RAMMED C | OS | IS (TPro W/OUT INFLATION) | | LAST | ESTIMATE UPDATE | | | | |
| CONST | RUCTION | \$ | 8,400,000.00 | | DATE | 5/8/2017 | | | | |
| DIGITE. | OF 117 A 17 | ф | 250,000,00 | | D 4 TD | 7/0/2017 | | | | |
| RIGHT | OF WAY | \$ | 250,000.00 | | DATE | 5/8/2017 | | | | |
| UTILITI | IES | \$ | | | DATE | | | | | |
| REVISE | ED COST ES | STI | MATES | | | | | | | |
| CONST | RUCTION* | \$ | 18,903,742.16 | | | | | | | |
| RIGHT | OF WAY | \$ | TBD** | | | | | | | |
| UTILITI | IES | \$ | 168,400.00 | | | | | | | |
| *Cost (| Contains | 15 | % Contingency | | | | | | | |
| REASO | REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION: | | | | | | | | | |
| Project i | s in early co | ncep | t phase. Cost increase is due to stag | e construction | of the bridge | which increased square | | | | |

foot cost of the bridge. A more refined cost estimate will be developed once plans are in preliminary phase.

CONTINGENCY SUMMARY

| A. CONSTRUCTION COST ESTIMATE: | \$ 15,611,176.82 | Base Estimate From CES | |
|--|---------------------|--|-------------------|
| B. ENGINEERING AND INSPECTION (E & I): | \$ 780,558.84 | Base Estimate (A) x | 5 % |
| c. CONTINGENCY: | \$ 2,458,760.35 | Base Estimate (A) + E & I (B) x See % Table in "Risk Based Cost Estimation" Memo | <mark>15</mark> % |
| D. TOTAL LIQUID AC ADJUSTMENT: | \$ 53,246.15 | Total From Liquid AC Spreadshee | et |
| E. CONSTRUCTION TOTAL: | \$ 18,903,742.16 | (A + B + C + D = E) | |

REIMBURSABLE UTILTY COSTS

| UTILITY OWNER | REIMBURSABLE COST |
|--|-------------------|
| Georgia Power Distribution | \$ 120,000.00 |
| CSX Railroad | \$ 48,400.00 |
| | |
| | |
| | |
| | |
| | |
| TOTAL | \$ 168,400.00 |
| ATTACHMENTS: (File Copy in the Project Cost Estimate | te Folder) |
| Detailed Cost Estimate Printout From TRAQS | |
| Liquid AC Adjustment Spreadsheet | |
| | |

Consultant Validation of Final QC/QA for Construction Cost Estimate Used in This Revision To Programmed Costs

| COMPANY NAME: | Holt Consulting Company, LLC | | | | | | |
|---------------------------|------------------------------|--|--|--|--|--|--|
| | | | | | | | |
| VALIDATION OF FINAL QC/QA | | | | | | | |
| PRINTED NAME: | Brad Gowen | | | | | | |
| | | | | | | | |
| TITLE: | PM | | | | | | |
| | | | | | | | |
| SIGNATURE: | Bull Evern | | | | | | |
| | | | | | | | |
| DATE: | 3/13/2018 | | | | | | |

DATE : 03/13/2018

PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0013605 SPEC YEAR: 13

DESCRIPTION: SR 38 (US 84) AT SATILLA RIVER BRIDGE REPLACEMENT

ITEMS FOR JOB 0013605

| AMOUNT | PRICE | QUANTITY | DESCRIPTION | ALT UNITS | ITEM Z | LINE |
|-------------|---|-----------|---|--|----------|------|
| 100000.00 | 100000.00 | 1.000 | TRAFFILE CONTROL 001360E | LS | 150-1000 | 0005 |
| 33692.78 | 8423.19 96174.24 71.22 259.89 1739.46 | 4.000 | TRAFFIC CONTROL - 0013605 TRAF CTRL,PORTABLE IMPACT ATTN FIELD ENGINEERS OFFICE TP 3 TEMPORARY GRASSING MULCH CONSTRUCTION EXIT | EA | 150-5010 | 0014 |
| 96174.25 | 96174.24 | 1.000 | FIELD ENGINEERS OFFICE TP 3 | EA | 153-1300 | 0015 |
| 213.69 | 71.22 | 3.000 | TEMPORARY GRASSING | AC | 163-0232 | 0020 |
| 19231.87 | 259.89 | 74.000 | MULCH | TN | 163-0240 | 0025 |
| 3478.93 | 1739.46 | 2.000 | CONSTRUCTION EXIT | EA | 163-0300 | |
| 13430.47 | 19.18 | 700.000 | CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN | EA EA AC TN EA LF | 163-0520 | 0040 |
| | | 10.000 | BG | EA | | 0045 |
| 3158.83 | 789.70 246.87 0.94 | 4.000 | CONSTR & REM ROCK FILTER DAMS | EA | 163-0541 | 0050 |
| 1481.22 | 246.87 | 6.000 | CONS & REM INLET SEDIMENT TRAP | EA | 163-0550 | 0055 |
| 2080.32 | 0.94 | 2200.000 | MAINT OF TEMP SILT FENCE, TP C | LF | 165-0030 | |
| 373.17 | 3.73 | 100.000 | MAINT OF CHECK DAMS - ALL TYPES | LF | 165-0041 | 0070 |
| 240.08 | 3.73 0.96 | 250.000 | MAINT OF SILT RETENTION BARRIER | LF | 165-0050 | 0074 |
| 1269.14 | 634.56 | 2.000 | MAINT OF CONST EXIT | EA | 165-0101 | 0080 |
| 424.53 | 634.56 70.75 | 6.000 | MAINT OF INLET SEDIMENT TRAP | EA | 165-0105 | |
| 1243.29 | 310.82 | 4.000 | MAINT OF ROCK FILTER DAM | EA | 165-0110 | |
| 1733.31 | 310.82 433.32 | 4.000 | CONSTR & REM ROCK FILTER DAMS CONS & REM INLET SEDIMENT TRAP MAINT OF TEMP SILT FENCE, TP C MAINT OF CHECK DAMS - ALL TYPES MAINT OF SILT RETENTION BARRIER MAINT OF CONST EXIT MAINT OF INLET SEDIMENT TRAP MAINT OF ROCK FILTER DAM WATER QUALITY MONITORING AND SAMPLING | EA LF LF LF EA EA EA | 167-1000 | 0095 |
| 19082.64 | 795.11 19.87 | | | MO | 167-1500 | 0100 |
| 9939.14 | 19.87 | 500.000 | FLOAT SILT RETENTION BARRIER | LF | 170-1000 | 0105 |
| 19513.03 | 4.43 | 4400.000 | TEMPORARY SILT FENCE, TYPE C | LF | 171-0030 | 0115 |
| 500000.00 | 500000.00 | 1.000 | GRADING COMPLETE - 0013605 | LS | 210-0100 | 0120 |
| 7089.50 | 35.44 | 200.000 | AGGR SURF CRS | TN | 318-3000 | 0130 |
| 136137.60 | 35.44 87.83 | 1550.000 | WATER QUALITY INSPECTIONS FLOAT SILT RETENTION BARRIER TEMPORARY SILT FENCE, TYPE C GRADING COMPLETE - 0013605 AGGR SURF CRS RECYL AC 12.5 MM SP,GP2ONLY,INC P-MBM&HL | MO LF LF LS TN TN | 402-4510 | 0135 |
| | 92.00 | | RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL | IIV | 402-3190 | 0140 |
| 146497.48 | 87.20 | 1680.000 | RECYL AC 25MM SP,GP1/2,BM&HL | TN | 402-3121 | 0145 |
| 4272.82 | 3.44 | 1240.000 | TACK COAT | GL | 413-0750 | 0150 |
| 39307.02 | 3.76 | 10440.000 | MILL ASPH CONC PVMT/ 1.50 DEP | SY | 432-0206 | 0155 |
| 97786.98 | 184.50 | 530.000 | REINF CONC APPROACH SLAB | SY | 433-1000 | 0160 |
| 8804.80 | 2201.20 | 4.000 | CONC SPILLWAY, TP 1 | EA | 441-0301 | 0170 |
| 4760.37 | 4760.37 | 1.000 | RECYL AC 25MM SP,GP1/2,BM&HL TACK COAT MILL ASPH CONC PVMT/ 1.50 DEP REINF CONC APPROACH SLAB CONC SPILLWAY, TP 1 INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP) | TN GL SY SY EA GLM | 456-2015 | 0180 |
| 3833934.00 | 3833934.00 | 1.000 | REM OF EX BR, STA NO - 117+00 CONSTR OF BRIDGE COMPLETE - 1 SIDE DR PIPE 18,H 1-10 SAFETY END SECTION 18,STD,6:1 STN DUMPED RIP RAP, TP 3, 18 PLASTIC FILTER FABRIC TEMP BARRIER, METHOD NO. 1 TEMP BARRIER, METHOD NO. 2 | LS LF EA SY SY LF LF | 540-1101 | 0185 |
| 10010000.00 | 10010000.00 | 1.000 | CONSTR OF BRIDGE COMPLETE - 1 | LS | 543-9000 | |
| 3301.55 | 33.01 | 100.000 | SIDE DR PIPE 18,H 1-10 | LF | 550-2180 | |
| 1341.09 | 670.54 | 2.000 | SAFETY END SECTION 18,STD,6:1 | EA | 550-3518 | |
| 2895.56 | 80.43 | 36.000 | STN DUMPED RIP RAP, TP 3, 18 | SY | 603-2181 | |
| 181.73 | 5.04 | 36.000 | PLASTIC FILTER FABRIC | SY | 603-7000 | |
| 25769.24 | 80.43 5.04 34.82 23.40 | 740.000 | TEMP BARRIER, METHOD NO. 1 | LF | 620-0100 | |
| | 22 40 | 1540 000 | TEMP BARRIER, METHOD NO. 2 | T 🗗 | 620-0200 | |

DATE : 03/13/2018

ESTIMATED TOTAL:

PAGE : 2

JOB ESTIMATE REPORT

| ===== | :========== | | .====================================== | ======================================= | ========== | |
|-------|--|----------------------|--|---|----------------------|-------------|
| 0245 | 636-1033 | SF | HWY SIGNS, TP1MAT, REFL SH TP 9 | 10.000 | 20.32 | 203.23 |
| 0250 | 636-1036 | SF | HWY SGN, TP1MAT, REFL SH TP 11 | 40.000 | 21.25 | 850.14 |
| 0265 | 636-2070 | $_{ m LF}$ | GALV STEEL POSTS, TP 7 | 100.000 | 8.51 | 851.85 |
| 0270 | 641-1100 | $_{ m LF}$ | GUARDRAIL, TP T | 124.000 | 66.76 | 8278.25 |
| 0275 | 641-1200 | $_{ m LF}$ | GUARDRAIL, TP W | 1335.000 | 19.63 | 26212.43 |
| 0280 | 641-5001 | EA | GUARDRAIL ANCHORAGE, TP 1 | 2.000 | 1054.83 | 2109.67 |
| 0290 | 641-5015 643-8200 653-1501 653-1502 653-0120 653-1704 653-3501 653-3502 653-6004 654-1001 654-1003 657-1085 657-3085 657-3085 657-3086 657-6085 668-2100 700-6910 700-7000 | EACH | HWY SIGNS, TP1MAT, REFL SH TP 9 HWY SGN, TP1MAT, REFL SH TP 11 GALV STEEL POSTS, TP 7 GUARDRAIL, TP T GUARDRAIL, TP W GUARDRAIL ANCHORAGE, TP 1 GUARDRA ANCHOR, TP 12A, 31 IN, TANG, E/A | | | |
| 0294 | 643-8200 | $_{ m LF}$ | BARRIER FENCE (ORANGE), 4 FT | 1000.000 | 2.03 | 2035.76 |
| 0295 | 653-1501 | $_{ m LF}$ | THERMO SOLID TRAF ST 5 IN, WHI | 5084.000 | 0.64 | 3265.10 |
| 0300 | 653-1502 | $_{ m LF}$ | THERMO SOLID TRAF ST, 5 IN YEL | 3844.000 | 0.64 | 2487.88 |
| 0304 | 653-0120 | EA | THERM PVMT MARK, ARROW, TP 2 | 3.000 | 95.70 | 287.12 |
| 0305 | 653-1704 | $_{ m LF}$ | THERM SOLID TRAF STRIPE, 24, WH | 34.000 | 8.74 | 297.42 |
| 0310 | 653-3501 | GLF | THERMO SKIP TRAF ST, 5 IN, WHI | 3924.000 | 0.38 | 1523.02 |
| 0315 | 653-3502 | GLF | THERMO SKIP TRAF ST, 5 IN, YEL | 3744.000 | 0.32 | 1216.43 |
| 0319 | 653-6004 | SY | THERM TRAF STRIPING, WHITE | 42.000 | 5.27 | 221.50 |
| 0320 | 654-1001 | EA | RAISED PVMT MARKERS TP 1 | 423.000 | 3.69 | 1563.50 |
| 0325 | 654-1003 | EA | BARRIER FENCE (ORANGE), 4 FT THERMO SOLID TRAF ST 5 IN, WHI THERMO SOLID TRAF ST, 5 IN YEL THERM PVMT MARK, ARROW, TP 2 THERM SOLID TRAF STRIPE, 24, WH THERMO SKIP TRAF ST, 5 IN, WHI THERMO SKIP TRAF ST, 5 IN, YEL THERM TRAF STRIPING, WHITE RAISED PVMT MARKERS TP 1 RAISED PVMT MARKERS TP 3 PRF PL SD PVT MKG, 8, B/W, TP PB DRE DL SK DVMT MKG, 8, B/W, TP DR | 433.000 | 3.76 6.96 4.88 | 1628.98 |
| 0330 | 657-1085 | $_{ m LF}$ | PRF PL SD PVT MKG,8,B/W,TP PB | 1600.000 | 6.96 | 11145.87 |
| 0335 | 657-3085 | GLF | PRF PL SK PVMT MKG,8,B/W,TPPB | 1600.000 | 4.88 | 7813.65 |
| 0340 | 657-3086 | GLF | FPR PL SK PVMT MKG, 8, B/Y, TPPB | 1600.000 | 5.47 | 8756.91 |
| 0345 | 657-6085 | $_{ m LF}$ | PRF PL SD PVMT MKG,8,B/Y,TPPB | 1600.000 | 6.98 | 11171.39 |
| 0350 | 668-2100 | EA | DROP INLET, GP 1 | 2.000 | 2695.06 | 5390.14 |
| 0355 | 700-6910 | AC | PERMANENT GRASSING | 5.000 | 483.47 | 2417.37 |
| 0360 | 700-7000 | TN | AGRICULTURAL LIME | 15.000 | 11.46 | 171.99 |
| 0365 | 700-8000 | TN | FERTILIZER MIXED GRADE | 4.000 | 713.34 | 2853.37 |
| 0370 | 700-8100 | LB | FERTILIZER NITROGEN CONTENT | 250.000 | 4.11 | 1029.11 |
| 0375 | 716-2000 | SY | EROSION CONTROL MATS, SLOPES | 1000.000 | 2.51 | 2513.33 |
| 0380 | 711-0100 | SY | TURF REINFORCING MATTING, TP 1 | 460.000 | 4.30 | 1979.19 |
| | 632-0003 | EA | CHANGEABLE MESS SIGN, PORT, TP 3 | 2.000 | 9656.36 | 19312.73 |
| 0390 | 310-5060 | SY | GR AGGR BS CRS 6IN INCL MATL | 2295.000 | 20.86 | 47885.63 |
| 0395 | 310-5120 | SY | PRF PL SD PVT MKG,8,8/W,TP PB PRF PL SK PVMT MKG,8,8/W,TPPB FPR PL SK PVMT MKG,8,8/Y,TPPB PRF PL SD PVMT MKG,8,8/Y,TPPB DROP INLET, GP 1 PERMANENT GRASSING AGRICULTURAL LIME FERTILIZER MIXED GRADE FERTILIZER MITROGEN CONTENT EROSION CONTROL MATS, SLOPES TURF REINFORCING MATTING, TP 1 CHANGEABLE MESS SIGN,PORT,TP 3 GR AGGR BS CRS 6IN INCL MATL GR AGGR BS CRS 12IN INCL MATL | 6095.000 | 25.66 | 156441.89 |
| | | | | | | |
| INFLA | TED ITEM TOTAL | | | | | 15611176.82 |
| TOTAL | S FOR JOB 0013605 | | | | | |
| ESTIM | MATED COST: | | | | | 15611176.82 |
| | NGENCY PERCENT (0 | .0): | | | | 0.00 |
| _ ~ | TARRED ROBERT . | | | | | 15611156 00 |

15611176.82

PROJ. NO.
P.I. NO.
DATE

0013605
3/13/2018

Link to Fuel and AC Index:

http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

CALL NO.

\$

51,916.80

INDEX (TYPE)

REG. UNLEADED

DIESEL

LIQUID AC

DATE

INDEX

4.431

Substitute 1.431

Augustian 1.431

Augus

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

| Price Adjustment (PA) | | | 51916.8 |
|--|----------|-----|--------------|
| Monthly Asphalt Cement Price month placed (APM) | Max. Cap | 60% | \$ 665.60 |
| Monthly Asphalt Cement Price month project let (APL) | | | \$ 416.00 |
| Total Monthly Tonnage of asphalt cement (TMT) | | | 208 |

| ASPHALT | Tons | %AC | AC ton |
|-----------|------|------|--------|
| Leveling | | 5.0% | 0 |
| 12.5 OGFC | | 5.0% | 0 |
| 12.5 mm | 1550 | 5.0% | 77.5 |
| 9.5 mm SP | | 5.0% | 0 |
| 25 mm SP | 1680 | 5.0% | 84 |
| 19 mm SP | 930 | 5.0% | 46.5 |
| | 4160 | - | 208 |

BITUMINOUS TACK COAT

| Price Adjustment (PA) | | | \$ | 1,329.35 | \$ 1,329.35 |
|--|----------|-----|----|-------------|----------------|
| Monthly Asphalt Cement Price month placed (APM) | Max. Cap | 60% | \$ | 665.60 | |
| Monthly Asphalt Cement Price month project let (APL) | | | \$ | 416.00 | |
| Total Monthly Tonnage of asphalt cement (TMT) | | | į | 5.325925143 | |

Bitum Tack

| Gals | gals/ton | tons |
|------|----------|------------|
| 1240 | 232.8234 | 5.32592514 |

| PROJ. NO. | | | | | | | CALL NO. | |
|--|---------------|--|------|----------|------|----------|-----------------------------------|-----------------|
| P.I. NO. | 0013605 | | | | | | | |
| DATE | 3/13/2018 | | | | | | | |
| BITUMINOUS TACK CO Price Adjustment (PA) Monthly Asphalt Ceme Monthly Asphalt Ceme Total Monthly Tonnage | ent Price mon | oth placed (APM) oth project let (A | | Мах. Сар | 60% | \$ \$ | 0 665.60 416.00 0 | \$ - |
| Bitum Tack | SY | Gals/SY | Gals | gals/ton | tons | | | |
| Single Surf. Trmt. | | 0.20 | 0 | 232.8234 | 0 | | | |
| Double Surf.Trmt. | | 0.44 | 0 | 232.8234 | 0 | | | |
| Triple Surf. Trmt | | 0.71 | 0 | 232.8234 | 0 | | | |
| | | | | | 0 | | | |
| | | | | | | | | |
| TOTAL LIQUID AC ADJ | USTMENT | | | | | | | \$ 53,246.15 |

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

OFFICE: District 5, Utilities

DATE: January 16, 2018

FILE: PI No. 0013605, Ware County

SR 38/US 84 @ Satilla River in

Sunnyside

Samysiae

FROM: Dallory Rozier, District Utilities Manager

TO: Aghdas Ghazi, Project Manager

SUBJECT: PRELIMINARY UTILITY COST ESTIMATE

A review of utilities located on the above referenced project has been conducted without a design concept. Listed below is a breakdown of the anticipated reimbursable and non-reimbursable cost.

| <u>Utility Owner</u> | Reimbursable | <u>Non-</u> Reimbursable | Estimate Based on |
|---|--------------|-----------------------------|------------------------|
| Atlanta Gas Light | | \$60,000.00 | |
| Alma Telephone Co. | | \$15,000.00 | |
| ATT | | \$15,000.00 | |
| City of Waycross Water | \$0.00 | \$0.00 | |
| City of Waycross Sewer | \$0.00 | \$0.00 | |
| GA Power Company-Distribution | \$120,000.00 | | |
| Unity Fiber (formally Tower Cloud) | | \$15,000.00 | |
| | | | |
| Total 0.000/ | ¢120,000,00 | \$105,000,00 | |
| Total 0.00% | \$120,000.00 | \$105,000.00 | |
| Department Responsibility 100.00% | \$120,000.00 | \$ 0.00 | |
| Local Sponsor Responsibility 0.00% | \$0.00 | \$ 0.00 | PFA Dated N/A with N/A |
| | | | |
| | | | |
| | | | |

^{**} Indicates Potential Utility Aid Request from Local Gov't

Estimate is based on the best available information at the current stage, unforeseen prior rights information may be provided by the Utility Company at a later date that could cause some non-reimbursable costs to shift to the reimbursable cost column.

If additional information is needed, please contact Leslie Dubberly at 912-530-4404.

cc: Patrick Allen, P.E., State Utilities Manager Kerry Gore, Assistant State Utilities Administrator Yulonda Pride-Foster, Utilities Preconstruction Manager Stevonn Dilligard, Utilities Preconstruction Specialist Tonia Hinton, Utilities Preconstruction Specialist Vahid Munshi, Management Specialist

Original Version: May 24, 2013

The following utilities have facilities within the project limits. Utilities have been located using Georgia811 and/or field visits.

| Existing Facilties/Appurtenances | Approximate Limits (Station/Offset) | Reimbursable cost (est.) | Non- reimbursable cost (est.) | Facilities to Avoid (Station/Offset) | Facility Retention Recommended | Comments |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|---|--------------------------------------|--------------------|
| Atlanta Gas Light | Total project limits | | \$60,000.00 | | | attached to bridge |
| Alma Telephone Co. | Total project limits | | \$15,000.00 | | | |
| АТТ | Total project limits | | \$15,000.00 | | | |
| City of Waycross sewer | Total project limits | | \$35,000.00 | | | |
| GA Power Co-Distribution | Total project limits | \$120,000.00 | | | | |
| Unity Fiber | Total project limits | | \$15,000.00 | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Original Version: May 24, 2013

Concept Utility Report

| Project Number: <u>0013605</u> | District: 5 |
|--|--|
| County: Ware | Prepared by: Leslie Dubberly |
| P.I. # <u>0013605</u> | Date : 2-5-18 |
| Project Description: SR 38/US 84 @ Sa | atilla River in Sunnyside |
| · · | gathered from Georgia811and/or field visits and serves as an estimate ed as a substitute for 1 st Submission or SUE. |
| Are SUE services recommended? No | Level: A B C D |
| Public Interest Determination (PID): | Automatic Mandatory Consideration |
| | No Use |
| Is a separate utility funding phase reco | ommended? N/A |
| Existing Facilities: Atlanta Gas Light, A Company-Distribution, Unity Fiber | Ima Telephone Co., AT&T, City of Waycross Sewer, GA Power |
| Potential Project (Schedule/Budget) Ir | mpacts: N/A |
| Capital Improvement Projects (Utilitie | s) Anticipated in the Area: <u>N/A</u> |
| Project Specific Recommendations for | Avoidance/Mitigation: N/A |
| Right of Way Coordination Concerns: | <u>N/A</u> |
| Environmental Coordination: N/A | |
| Additional Remarks: <u>N/A</u> | |

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: PI #0013605, Ware County OFFICE: State Utilities Office

FROM: Patrick Allen, State Utilities Administrator DATE: February 28, 2018

TO: Kimberly Nesbitt, State Program Delivery Administrator

Attn: Aghdas Ghazi, Project Manager

SUBJECT: PRELIMINARY RAILROAD COST FOR SURFACE WORK (CONCEPT ESTIMATE)

A review of railroads located within the project limits on the above referenced project has been conducted based on the proposed concept report. Listed below is a breakdown of the estimated railroad costs:

| FACILITY OWNER | NON-REIMBURSABLE | REIMBURSABLE | |
|--|----------------------------|----------------------------------|--|
| CSX Transportation, Inc. – P.E. review cost for Parallel project – Const. inspection cost for Parallel proje | \$0.00 \$ ect \$0.00 \$ | 25,000.00-GDOT 23,400.00-GDOT | |
| Total Reimbursement Cost: | \$0.00 \$ | 48,400.00 | |

Total railroad surface work reimbursable cost for the above project is estimated to be: \$48,400.00

Please note that this amount does not include other reimbursable utility costs that may be associated with this project. This project is GDOT funded.

If you have any questions, please contact Jill Franks, (404) 631-1370, <u>jfranks@dot.ga.gov</u> or Marcela Coll, (404)631-1372 <u>mcoll@dot.ga.gov</u>.

PA:jlf

cc: Yulonda Pride-Foster, Utilities Preconstruction Manager Angela Robinson, State Financial Management Administrator Dallory Rozier, District 5 Utilities Manager Kevin Cowan, Utilities Railroad Crossing Manager

Brad Gowen

From: Westberry, Lisa <lwestberry@dot.ga.gov>
Sent: Wednesday, March 14, 2018 5:01 PM

To: Ghazi, Aghdas; Brad Gowen

Cc: Priger, Kaelin M

Subject: P.I. 0013605, Ware/Pierce Counties - Estimated Mitigation Cost for Concept Report

Aghdas/Brad,

As requested, the estimated mitigation costs for the subject project is **\$50,000**. This was based on a review of aerial photography, NWI mapping, and NRCS soil surveys and not an actual field verification. The total cost of mitigation credits could remain the same or be higher once the ecology field survey is complete.

If you should have any questions or need any additional information, please do not hesitate to contact me.

Thank you,

Lisa Westberry | Special Projects Coordinator | Office of Environmental Services | 600 West Peachtree Street, NW | Atlanta, GA 30308 | 404-631-1772

Roadway fatalities in Georgia are up 33% in two years. That's an average of four deaths every single day! Many of these deaths are preventable and related to driver behavior: distracted or impaired driving, driving too fast for conditions, and/or failure to wear a seatbelt. Pledge to DRIVE ALERT ARRIVE ALIVE. Buckle up – Stay off the phone and mobile devices – Drive alert. Visit www.dot.ga.gov/DAAA. #ArriveAliveGA

Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Ware County OFFICE Planning

P.I. # 0013605

DATE March 2, 2018

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Kimberly Nesbitt, State Program Delivery Administrator

Attention: Aghdas Ghazi

SUBJECT Design Traffic Forecasts for SR 38/US 84 @ SATILLA RIVER IN

SUNNYSIDE

Per request, we have reviewed the consultant's design traffic forecasts for the above project. Based on the information furnished, we find the design traffic forecasts to be satisfactory, and the design traffic forecasting task to be complete for the above project. The reviewed and approved design traffic diagrams for the above project is within the approved attached traffic forecasting methodology document. Also, the reviewed and approved design traffic forecast for the above project is as follows:

BRIDGE ID # 299-0013-0

| DIVIDUE ID # 255-0015-0 | | | | | | | |
|-------------------------|----------------|-----------------------|------------|--------------------|-------------------|--|--|
| Build = No Build | 2017 (Existing | 2025 (Base Year | | | 2045 (Design Year | | |
| Dulla – No Dulla | Year) | 2023 (Base Year) | +2) | 2043 (Design Year) | + 2) | | |
| AADT | 22500 | 23200 | 23400 | 25600 | 25850 | | |
| DHV (AM/PM) | 1800/ 2025 | 1855/ 2085 | 1875/ 2110 | 2050/ 2305 | 2070/ 2325 | | |
| K% (AM/PM) | 8.0%/ 9.0% | | | | | | |
| D% (AM/PM) | 68.5%/ 60.0% | | | | | | |
| 24 HR. T% - S.U. | 16.0% | Come on Frinting Very | | | | | |
| 24 HR. T% - COMB. | 5.0% | | | | | | |
| 24 HR. T% - TOTAL | 21.0% | Same as Existing Year | | | | | |
| T% - S.U. (AM/PM) | 16.0%/ 15.5% | | | | | | |
| T% - COMB. (AM/PM) | 4.0%/ 4.0% | | | | | | |
| T% - TOTAL (AM/PM) | 20.0%/ 19.5% | | | | | | |

If you have any questions concerning this information, please contact Andre Washington at 404-631-1925.

Andre Washington Office Of Planning 5th Floor, One Georgia Center 404-631-1925

CLV/AMW



February 1, 2018 Concept Team Meeting Minutes

PI No. 0013605

TO: All attendees

FROM: Brad Gowen

Meeting Date: February 1, 2018

RE: PI 0013605 SR 38/US 84 at Satilla River Bridge Replacement in Sunnyside

Location: Waycross Area Office – 104 N. Nichols Street, Waycross, GA

Purpose: Concept Team Meeting

I. WELCOME

II. INTRODUCTIONS – ATTENDEES INCLUDE:

Aghdas Ghazi, GDOT OPD

Brad Gowen, Holt Consulting

Troy Pittman, GDOT Preconstruction

Brandan McDaniel, GDOT Construction

Jerome Sheffield, GDOT Construction

Mark Shuman, GDOT Construction

Dusty Mercer, GDOT Construction

Michael Brooks, Ware County

Becky Simmons, GDOT Utilities

Joey White, Atlanta Gas Light

Brian Adams, Heath and Lineback Engineers

Rex Walker, ATC Broadband

Buddy Covington, KEA Group

Doug Hart, KEA Group

Ron Smith, KEA Group

William Eastin, GDOT Planning

Valencia Carter, GDOT ROW

Adrienne Conley, GDOT Ecology

Ryan Perry, GDOT NEPA

Kaelin Priger, GDOT NEPA

- Aghdas Ghazi gave a brief project description and then turned the meeting over to Brad Gowen to go through the Concept Report.
- Brad Gowen described the need and purpose of the project as being a bridge replacement project
 due to the weight restrictions and the structural integrity of the existing bridge. He proceeded to go
 through the different aspects of the Concept Report.
- Level D SUE is underway in the first Task Order.
- Becky Simmons stated that the District Utilities does not want SUE for the remaining Task Orders.
- Troy Pittman recommended to add the 4-lane staging alternate that was presented at the meeting to the Concept Report.
- Troy Pittman mentioned the weight restrictions on the northside where the original bridge was constructed.
- Brian Adams stated that the four-lane option would shift traffic to the southern side so the northern side where the older portion of the bridge could be removed in the 1st stage.
- Brian Adams stated the ideal place to cut the bridge longitudinally is where the bridge was widened in 1980.
- Troy Pittman stated that the four-lane option with 10-foot lanes with no shy-line would need to be debated versus the alternate where traffic would be reduced to one lane in each direction.
- Troy Pittman stated that GDOT may prefer additional bridge width to provide some additional width for staging the four-lane option. The Bridge Office would have to provide some feedback.
- Jerome Sheffield asked where the cut line that is shown up top correlates to the substructure?
 Brian Adams stated the traffic would be pushed over to the widened bridge which is the three column concrete bents and the older portion of the bridge that has the wall bents would be removed in stage 1.
- Jerome Sheffield stated that the footings adjacent to the wall bents (the four bents that are in the river have seal concrete). They are on pile footings.
- Brian Adams stated that with the four-lane option that the construction would likely be top down construction for stage 2 and 3 unless cranes have access to the railroad side of the bridge for stage 3.
- Brian Adams stated in would probably be 6-9 months for the first stage for the four-lane option (10-foot wide lanes with no shy-line.)
- Jerome Sheffield recommended that the DNR boat ramp would need to be closed during construction.
- Brad Gowen is to check whether a variance is required for the 14' flush median based on the functional classification and amount of traffic.
- Brad Gowen stated the railroad is considered historic. Currently the preferred alternate shows
 easement within the railroad r/w but this would not be considered an adverse affect.
- Brian Adams stated that the contractor would probably prefer to use the boat ramp for access to the river.
- Jerome Sheffield stated that the contractor's laydown area will be limited during construction.
- Joey White stated he had some concerns with the bridge construction and how it may affect the gas line.
- Brad Gowen stated the proposed centerline would need to go back where the existing center line current is due to the proximity of the overflow bridge to the south. A shifted alignment is not feasible.
- Brad Gowen stated that the paving quantities are based on milling and inlaying the existing at the tie-ins to account for the temporary striping (traffic shifts) that would be needed during the traffic control of the project.

- Jerome Sheffield asked about the proposed bents and how they would line up with the existing?
- Brian Adams stated that the approach would be possibly 50-foot spans to straddle the existing 25-foot spans. The existing span at the river is 75 feet. A reasonable maximum span for the river would be around 140 feet. The conflicts between the existing and the proposed footings would be studied in Preliminary Plans.
- Jerome Sheffield asked if there will be any environmental restrictions due to species and plants.
- Adrienne Conley stated that the Satilla River is critical habitat for Atlantic Sturgeon, so ecology would need to work out a special provision for times that construction could take place.
- Troy Pittman asked what type of substructure is anticipated?
- Brian Adams stated that some type of driven pile is likely.
- Ryan Perry stated that we would have to coordinate with the locals that have jurisdiction over the boat ramp and work out an agreement that they would sign and acknowledge no adverse De minimis impacts to the resource. (4f)
- Troy Pittman stated that after construction was complete that the boat ramp would need to be restored.
- Jerome Sheffield asked if the boat ramp/driveway was access for the railroad.
- The Plans would need to address that the contractor maintains access for the railroad during construction.
- Ga Power Distribution will have to relocate their facilities.
- Brian Adams stated that due to the hydraulics that the profile may need to be raised some.
- Troy Pittman is to send comments in reference to the staging options to Aghdas Ghazi.
- William Eastin asked about updating the cost estimate due to the difference in cost between the programmed cost in TPro and the concept report cost estimate. The ROW and Utility cost are likely to increase too.
- Mark Shuman recommended a possible three lane staging-2 lanes NB and 1 lane SB. This
 alternate will also be added to the Concept Report.
- Ryan Perry stated that Informal Section 7 coordination with National Marine Fisheries for the Atlantic Sturgeon will be required which will likely take 6-12 months.
- Ryan Perry stated to be mindful of the 4f impacts to boat ramp and make sure the Environmental sub-consultant is scoped to do a 4f evaluation.
- District Utilities stated that all power is to be shown reimbursable on the preliminary cost estimate. GA Power will claim prior rights on every project, but we won't have any documents to review for approval/decline until 2nd submission. For EMC's we should have a more definite estimate once we receive plans that we can provide them.

Bridge Inventory Data Listing Georgia Department of Transportation

SUFF. RATING: 50.5

County: Ware

Processed Date:9/12/2017

Bridge Serial Number: 299-0013-0

Parameters: Bridge Serial Number

299-00038D-021.31E

* Location ID No:

| Enage conditions 200 00 to 0 | | ounty: Haro | | | |
|-----------------------------------|---|------------------------------------|--|--|---|
| Location & Geography | | 218 Datum: | 0- Not Applicable | Signs & Attachments | |
| Structure ID: | 299-0013-0 | *19 Bypass Length: | 19 | 225 Expansion Joint Type: | 02- Open or sealed concrete joint (silicone |
| | | | | | sealant). |
| 200 Bridge Information: | 06 | *20 Toll: | 3- On a Free Road or Non-Highway | 242 Deck Drains: | 1- Open Scuppers. |
| *6 Feature Intersected: | SATILLA RIVER | *21 Maintenance Responsibility: | 01-State Highway Agency. | 243A Parapet Location: | 0- None present. |
| *7A Route Number Carried: | SR00038 | *22 Owner: | 01-State Highway Agency. | 243B Parapet Height: | 0.00 |
| *7B Facility Carried: | SR 38 - US 84 | *31 Design Load: | 2- H 15 | 243C Parapet Width: | 0.00 |
| 9 Location: | 2.5 MI E OF WAYCROSS | 37 Historical Significance: | 5- Not eligible for the National Register of Historic Places | 238A Curb Height: | 0.0 |
| 2 GDOT District: | 4841500000 - D5 District Five Jesup | 205 Congressional District: | 001 | 238B Curb Material: | 0- None. |
| *91 Inspection Frequency: | 24 Date: 11/18/2015 | 27 Year Constructed: | 1923 | 239A Handrail Left: | 9- Concrete New Jersey Type Barrier. |
| 92A Fracture Critical Insp. Freq: | 0 Date: 02/01/1901 | 106 Year Reconstructed: | 1982 | 239B Handrail Right: | 9- Concrete New Jersey Type Barrier. |
| 92B Underwater Insp Freq: | 60 Date: 02/01/2017 | 33 Bridge Median: | 0-None | *240 Median Barrier Rail: | 0- None. |
| 92C Other Spc. Insp Freq: | 0 Date: 02/01/1901 | 34 Skew: | 0 | 241A Bridge Median Height: | 0 |
| * 4 Place Code: | 00000 | 35 Structure Flared: | No | 241B Bridge Median Width: | 0 |
| *5A Inventory Route(O/U): | 1 | 38 Navigation Control: | 0- Navigation is not controlled by an Agency | *230A Guardrail Location Direction Rear: | 6- Both sides, approach and continuous. |
| 5B Route Type: | 2 - U.S. Numbered | 213 Special Steel Design: | 0- Not applicable or other | *230B Guardrail Location Direction Fwrd: | 6- Both sides, approach and continuous. |
| 5C Service Designation: | 1- Mainline | 267A Type Paint Super Structure: | 0- Not Applicable. Year : 0000 | *230C Guardrail Location Opposing Rear: | 0- None. |
| 5D Route Number: | 00084 | 267B Type Paint Sub Structure: | 0- Not Applicable Year : 0000 | *230D Guardrail Location Opposing Fwrd: | 0- None. |
| 5E Directional Suffix: | 0. Not applicable | *42A Type of Service On: | 1-Highway | 244 Approach Slab: | 3- Forward and Rear. |
| *16 Latitude: | 31 - 14.3142 | *42B Type of Service Under: | 5-Waterway | 224 Retaining Wall: | 0- None. |
| *17 Longtitude: | 82 - 19.3710 | 214A Movable Bridge: | 0 | 233 Posted Speed Limit: | 55 |
| 98A Border Bridge: | 0 98B: GA% 00 | 214B Operator on Duty: | 0 | 236 Warning Sign: | No |
| 99 ID Number: | 0000000000000 | 203 Type Bridge: | O - Multiple combinations (be sure the different types are on file). | 234 Delineator: | Yes |
| | | | O. Concrete O. Concrete | | |
| *100 STRAHNET: | 2- The Feature is on a Non-Interstate STRAHNET route. | 259 Pile Encasement: | 3 | 235 Hazard Boards: | No |
| 12 Base Highway Network: | Yes | *43A Structure Type Main material: | 2-Concrete (Continuous) | 237A Gas: | 32- Side Right. |
| 13A LRS Inventory Route: | 2991003800 | *43B Structure Type Main Type: | 4-Tee Beam | 237B Water: | 00- Not Applicable |
| 13B Sub Inventory Route: | 0 | 45 Number of Main Spans: | 25 | 237C Electric: | 00- Not Applicable |
| 101 Parallel Structure: | N. No parallel structure exists | 44 Structure Type Approach: | A:0- Other B: 0- Other | 237D Telephone: | 00- Not Applicable |
| *102 Direction of Traffic: | 2- Two Way | 46 Number of Approach Spans: | 0 | 237E Sewer: | 00- Not Applicable |
| *264 Road Inventory Mile Post: | 21.35 | 226 Bridge Curve: | A: Vertical: YesB: Horizontal: No | 247A Lighting: Street: | No |
| *208 Inspection Area: | Area 05 | 111 Pier Protection: | N - Navigation Control item coded 0, or Feature not a waterway | 247B Navigation: | No |
| *104 Highway System: | 1-Inventory Route is on the NHS | 107 Deck Structure Type: | 1 - C-I-P Portland Cement Concrete - Epoxy Coated Rebars | 247C Aerial: | No |
| *26 Functional Classification: | 14- Urban - Other Principal Arterial | 108A Wearing Surface Type: | 6. Bituminous | *248 County Continuity No.: | 00 |
| *204A Federal Route Type: | F - Primary. | 108B Membrane Type: | 8. Unknown | 36A Bridge Railings: | 2- Inspected feature meets acceptable |
| | | | | | construction date standards. |
| *204B Federal Route Number: | 00263 | 108C Deck Protection: | 8. Unknown | 36B Transition: | 2- Inspected feature meets acceptable |
| | | | | | construction date standards. |
| 105 Federal Lands Highway: | 0. Not applicable | 265 Underwater Inspection Area: | 1 | 36C Approach Guardrail: | 2- Inspected feature meets acceptable |
| | | | | | construction date standards. |
| *110 Truck Route: | 1- The Feature is part of the National Network For | | | 36D Approach Guardrail Ends: | 2- Inspected feature meets acceptable |
| | Trucks | | | | construction date standards. |
| 217 Benchmark Elevation: | 0000.00 | | | | |

Bridge Inventory Data Listing Georgia Department of Transportation

SUFF. RATING: 50.5

County: Ware

Processed Date:9/12/2017

Bridge Serial Number: 299-0013-0

| Bridge Schar Hamber. 200 0010 0 | | Control Contro | | | | |
|---------------------------------|---|--|--|---------------------------------------|------------------------------|---|
| | Programming Data | | Measurements: | | Ratings and Posting | |
| | 201 Project Number: | BHF-026-3 (23) | *29 AADT: | 21290 | 65 Inventory Rating Method: | 1-Load Factor (LF) |
| | 202 Plans Available: | 4- Plans in Infolmage. | *30 AADT Year: | 2012 | 63 Operating Rating Method: | 1-Load Factor (LF) |
| | 249 Proposed Project Number: | 000000000000000000000000000000000000000 | 109 % Truck Traffic: | 8 | 66A Inventory Type: | 2 - HS loading. |
| | 250A Reconstruction Approval Status: | No | * 28A Lanes On: | 4 | 66B Inventory Rating: | 19 |
| | 250B Route Approval Status: | No | *28B Lanes Under: | 0 | 64A Operating Type: | 2 - HS loading. |
| | 250C Approval Status Definition: | 0 | 210A Tracks On: | 00 | 64B Operating Rating: | 32 |
| | 250D Approval Status Federal: | 0 | 210B Tracks Under: | 0 | 231Calculated Loads | Posting Required |
| | 251Project Identification Number: | 0013605 | * 48 Maximum Span Length: | 75 | 231A H-Modified: | 21 Yes |
| | 252 Contract Date: | 02/01/1901 | * 49 Structure Length: | 763 | 231B Type3/Tandem: | 28 Yes |
| | 260 Seismic Number: | 00000 | 51 Bridge Roadway Width: | 76.0' | 231C Timber: | 37 Yes |
| | 75A Type Work Proposed: | 0- Not Applicable | 52 Deck Width: | 79.6000000000001' | 231D HS-Modified: | 30 No |
| | 75B Work Done by: | 0- Initial Inventory | * 47 Total Horizontal Clearance: | 76.0' | 231E Type 3S2: | 40 No |
| | 94 Bridge Improvement Cost:(X\$1,000) | \$00 | 50A Curb / Sidewalk Width Left: | 0.0 | 231F Piggyback: | 40 No |
| | 95 Roadway Improvement Cost: (X\$1,000) | \$0 | 50B Curb / Sidewalk Width Right: | 0.0 | 261 H Inventory Rating: | 13 |
| | 96 Total Improvement Cost: (X\$1,000) | \$0 | 32 Approach Rdwy. Width: | 73.0' | 262 H Operating Rating: | 22 |
| | 76 Improvement Length: | 0.0' | *229 Approach Roadway | | 67 Structural Evaluation: | 4 |
| | 97 Year Improvement Cost Based On: | 0 | Rear Shoulder Left: Width: 6.8 | Right Width: 6.4 Type: 2 - Asphalt. | 58 Deck Condition: | 6 - Satisfactory Condition |
| | 114 Future AADT: | 31935 | Fwd Shoulder: Left Width: 6.8 | Right Width:6.4 Type: 2 - Asphalt. | 59 Superstructure Condition: | 5 - Fair Condition |
| | 115 Future AADT Year: | 2032 | Rear Pavement: Width: 60.0 | Type:2- Asphalt. | * 227 Collision Damage: | |
| | | | Forward Pavement: Width: 60.0 | Type:2- Asphalt. | 60A Substructure Condition: | 5 - Fair Condition |
| | | | Intersection Rear: 0 | Forward:0 | 60B Scour Condition: | 6 - Satisfactory Condition |
| | Hydraulic Data | | 53 Minimum Vertical Clearance Over Rd: | 99' 99" | 60C Underwater Condition: | 5 - Fair Condition |
| | 113 Scour Critical: | U. No Load Rating; no scour critical data | 54A Under Reference Feature: | N- Feature not a highway or railroad. | 71 Waterway Adequacy: | 8-Equal to present desirable criteria. |
| | 216A Water Depth: | entered. 13.9 | 54B Minimum Clearance Under: | 0' 0" | 61 Channel Protection Cond.: | 7-Better than present minimum criteria. |
| | 216B Bridge Height: | 20.5 | *228 Minimum Vertical Clearance | | 68 Deck Geometry: | 9 |
| | 222 Slope Protection: | 1 | 228A Actual Odometer Direction: | 99'99" | 69 UnderClr. Horz/Vert: | N |
| | 221A Spur Dike Rear: | | 228B Actual Opposing Direction: | 99'99" | 72 Approach Alignment: | 8-No reduction of vehicle operating speed required. |
| | 221B Spur Dike Fwd: | | 228C Posted Odometer Direction: | 00'00" | 62 Culvert: | N - Not Applicable |
| | 219 Fender System: | 0- None. | 228D Posted Opposing Direction: | 00'00" | 70 Bridge Posting Required: | 3. 10 - 19.9% below |
| | 220 Dolphin: | | 55A Lateral Underclearance Reference: | N- Feature not a highway or railroad. | 41 Struct Open, Posted, CL: | P. Posted for load |
| | 223A Culvert Cover: | 000 | 55B Lateral Underclearance on Right: | 0.0 | * 103 Temporary Structure: | No |
| | 223B Culvert Type: | 0- Not Applicable | 56 Lateral Underclearance on Left: | 0.0 | 232 Posted Loads | |
| | 223C Number of Barrels: | 0 | 10A Direction of Travel for Max Min: | 0 | 232A H-Modified: | 21 |
| | 223D Barrel Width: | 0.0 | 10B Max Min Vertical Clearance: | 99'99" | 232B Type3/Tandem: | 28 |
| | 223E Barrel Height: | 0.0 | 245A Deck Thickness Main: | 8.0 | 232C Timber: | 37 |
| | 223F Culvert Length: | 0.0 | 245B Deck Thickness Approach: | 0.0 | 232D HS-Modified: | 00 |
| | 223G Culvert Apron: | 0 | 246 Overlay Thickness: | 2 | 232E Type 3s2: | 00 |
| | 39 Navigation Vertical Clearance: | 0' | | | 232F Piggyback: | 00 |
| | 40 Navigation Horizontal Clearance: | 0 | | | 253 Notification Date: | 02/01/1901 |
| | 116 Navigation Vertical Clear Closed: | 0 | | | 258 Federal Notify Date: | 02/01/1901 |

MS4 Concept Report Summary

Attach the following checklist information to the Concept Report Template:

| s | s there a Project Level Exclusion to If yes, please indicate which of t | ''' | □ No ply: | ⊠ Yes | |
|---|---|-------------------------------|--------------|----------------------------|-----------------|
| | □ Roadways that are not owne Coordinate with the appropria requirements. | . , , | • | | |
| | | thin a designated MS4 are | a. | | |
| | Maintenance and safety impone acre at each individual sinstallation, sign addition, and | ite. This includes projects s | such as rep | | |
| | ☐ Projects that have their envir or before June 30th, 2012. | onmental documents appro | oved or righ | nt-of-way plans submitted | for approval or |
| | ☐ Road projects that disturb les impervious area. | ss than 1 acre or for site de | evelopment | projects that add less tha | ın 5,000 ft² of |